

CLAIMS

WHAT IS CLAIMED IS:

1. A flexible package for holding and selectively dispensing a liquid therefrom, said package being arranged to be filled with the liquid and sealed on a machine, said package comprising a bag and a tap fitment, said bag being formed of a flexible material having edge portions confronting each other to form a fitment-receiving space, said tap fitment comprising a base section and a tap section, said base section being generally boat-shaped having a first longitudinal axis, an opposed pair of smooth and continuous sidewalls extending along opposite sides of said first longitudinal axis, a top wall, a flange including a peripheral recess extending outward from said top wall and a first passageway extending through said base section and said flange along a second axis perpendicular to said first longitudinal axis, said base section being arranged to be located within said fitment-receiving space and fixedly secured to the contiguous edge portions of the bag thereat, said tap section comprising a second passageway extending therethrough coaxial with said first passageway and a controllable dispensing portion comprising a generally tubular member in fluid communication with said second passageway and extending along a third axis perpendicular to said second axis, said controllable dispensing portion having an outlet located at one end of said third axis, a twist cap located at the opposite end of said third axis and a valve connected to said twist cap, said twist cap being arranged to be rotated about said third axis.

2. The package of Claim 1 additionally comprising an outer carton, said package being arranged to be located within said carton, said carton having a wall including an opening, with portions of said wall contiguous with said opening being located within said flange recess.

3. The package of Claim 1 wherein said generally boat-shaped base section comprises a central portion, a first end portion and a second end portion, said first end portion

projecting outward from said central portion and tapering to a first tip, said second end portion projecting outward from said central portion diametrically opposite said first end portion and tapering to a second tip, said first longitudinal axis
5 extending from said first tip to said second tip.

4. The package of Claim 3 wherein said central portion of said base section is of a generally cylindrical shape and wherein said first end portion tapers convexly from said central portion to said first tip and said second end portion tapers
10 convexly from said central portion to said second tip.

5. The package of Claim 4 additionally comprising an outer carton, said package being arranged to be located within said carton, said carton having a wall including an opening, with portions of said wall contiguous with said opening being located
15 within said flange recess.

6. A precursor for flexible packages for holding and selectively dispensing a liquid therefrom, each of said packages being formed of a flexible material and being arranged to be filled with the liquid and sealed on a machine and comprising a
20 pair of open bags interconnected by an intermediate section, each of said bags comprising a respective tap fitment, a first panel and a second panel juxtaposed opposite each other and fixedly secured to each other along first portions of their periphery, but unsecured along second portions of their
25 periphery, to form an open top, said tap fitment having a generally boat-shaped base section and a tap section, said base section being interposed and sealed between said first portions of the periphery of said panels, each of said bags being arranged to be filled with the liquid through said open top and
30 then sealed along said open top by the machine to enclose the liquid therein.

7. The precursor of Claim 6, wherein said generally boat-shaped base section has a first longitudinal axis, an opposed pair of smooth and continuous sidewalls extending along opposite
35 sides of said first longitudinal axis, a top wall, a flange including a peripheral recess extending outward from said top

wall and a first passageway extending through said base section and said flange along a second axis perpendicular to said first longitudinal axis, said base section being arranged to be located between juxtaposed portions of the periphery of said panels, said tap section comprising a second passageway extending therethrough coaxial with said first passageway and a controllable dispensing portion comprising a generally tubular member in fluid communication with said second passageway and extending along a third axis perpendicular to said second axis, said controllable dispensing portion having an outlet located at one end of said third axis, a twist cap located at the opposite end of said third axis and a valve connected to said twist cap, said twist cap being arranged to be rotated about said third axis.

8. The precursor of Claim 7 wherein said generally boat-shaped base section comprises a central portion, a first end portion and a second end portion, said first end portion projecting outward from said central portion and tapering to a first tip, said second end portion projecting outward from said central portion diametrically opposite said first end portion and tapering to a second tip, said first longitudinal axis extending from said first tip to said second tip.

9. The precursor of Claim 8 wherein said central portion of said base section is of a generally cylindrical shape and wherein said first end portion tapers convexly from said central portion to said first tip and said second end portion tapers convexly from said central portion to said second tip.

10. A method of making flexible packages holding a liquid therein, each of said packages including a tap fitment for selectively dispensing said liquid therefrom, said method comprising:

(A) providing a machine for forming, filling and sealing said flexible packages;

(B) introducing a flexible material in said machine to form a precursor for said flexible packages, said precursor comprising a pair of juxtaposed panels having a pair of edge

portions confronting each other to establish a fitment-receiving space;

(C) providing said tap fitment comprising a base section and a tap section, said base section being generally boat-shaped and having a first longitudinal axis and an opposed pair of smooth and continuous sidewalls extending along opposite sides of said first longitudinal axis;

(D) locating said base section within said fitment-receiving space and fixedly securing said sidewalls of said base section to the contiguous edge portions of said pair of panels at said fitment receiving space;

(E) establishing a hollow interior within said precursor,

(F) filling said hollow interior of said precursor with said liquid; and

(G) sealing said hollow interior of said precursor to complete said package and retain said liquid therein.

11. The method of Claim 10 wherein said machine is a vertical form, fill and seal machine.

12. The method of Claim 10 wherein said machine is a horizontal form, fill and seal machine.

13. The method of Claim 10 additionally comprising providing at least one of said filled packages into a carton having an opening, said opening being arranged to have a portion of said tap fitment extend therethrough for access outside of said carton.

14. The method of Claim 13 wherein said fitment comprises a flange including a peripheral recess, and wherein said method additionally comprises inserting portions of said carton contiguous with said periphery of said opening within said recess.

15. A method of making flexible packages holding a liquid therein, each of said packages including a tap fitment for selectively dispensing said liquid therefrom, said method comprising:

(A) providing a machine for filling and sealing flexible packages;

(B) providing a precursor for said packages, said precursor comprising a pair of open bags interconnected by an intermediate section, each of said bags comprising a respective tap fitment, a first panel and a second panel juxtaposed opposite each other and fixedly secured to each other along first portions of their periphery, but unsecured along second portions of their periphery, to form a hollow interior having an open top, said tap fitment having a generally boat-shaped base section and a tap section, said base section being interposed and sealed between said first portions of said periphery of said panels;

(C) filling said hollow interior of said precursor with said liquid; and

(D) sealing said open top of said precursor to complete said package and retain said liquid therein.

16. The method of Claim 15 additionally comprising providing at least one of said filled packages into a carton having an opening, said opening being arranged to have a portion of said tap fitment extend therethrough for access outside of said carton.

17. The method of Claim 13 wherein said fitment comprises a flange including a peripheral recess, and wherein said method additionally comprises inserting portions of said carton contiguous with the periphery of said opening within said recess.

18. A method of making flexible packages holding a liquid therein, each of said packages including a tap fitment for selectively dispensing said liquid therefrom, said method comprising:

(A) providing a machine for filling and sealing flexible packages;

(B) providing a precursor for said packages, said precursor comprising a pair of open bags interconnected by an intermediate section, each of said bags comprising a first panel and a second panel juxtaposed opposite each other and fixedly secured to each other along first portions of their periphery, but unsecured along second portions of their periphery to form a fitment-

receiving space, and also unsecured along third portions of their periphery to form a hollow interior having an open top,

(C) providing a tap fitment having a generally boat-shaped base section and a tap section,

5 (D) inserting said base section into said fitment-receiving space and sealing said base section to contiguous portions of said periphery of said panels;

(C) filling said hollow interior of said precursor with said liquid through said open top; and

10 (D) sealing said open top of said precursor to complete said package and retain said liquid therein.

19. The method of Claim 18 additionally comprising providing at least one of said filled packages into a carton having an opening, said opening being arranged to have a portion
15 of said tap fitment extend therethrough for access outside of said carton.

20. The method of Claim 19 wherein said fitment comprises a flange including a peripheral recess, and wherein said method additionally comprises inserting portions of said carton
20 contiguous with the periphery of said opening within said recess.